

Consequently there seems no reason for omitting the Blairstown station from the range of our plant.

The distribution of *Asplenium pinnatifidum*, therefore, may be said to be from Blairstown, New Jersey, and Youngstown, Ohio, south to Cartersville, Georgia, and west to Mine La Motte, Missouri (6), a region which lies approximately between the 41st and 30th parallels of latitude.

#### LITERATURE CITED

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### Recent Fern Literature

Professor Boris Fedtschenko has kindly sent us a copy of an excellent article by him on the altitudinal distribution of ferns in the mountains of Turkestan. That seems a long way off; but a glance at Professor Fedtschenko's pages reveals such familiar names as *Woodsia ilvensis*, *Cystopteris fragilis*, *Dryopteris Thelypteris*, *Asplenium Trichomanes*, and *Ophioglossum vulgatum*,—in all, 13 species which occur in the United States out of 23 listed.

There are six mountain systems in Turkestan, all but one of which reach, at their highest points, 10,000 feet or more; one rises 24,000. The Tian-Shan, on the frontier of China, has the moistest climate, the most forests, and, in consequence, the most ferns (18 species). The heights

reached by the ferns varies, of course, with different species, and the average attainment of all species varies, for climatic reasons, among the different ranges. It is not surprising to find that the nearly ubiquitous *Cystopteris fragilis* holds the altitude record of almost 15,000 feet—indeed, it is the only species hardy enough to penetrate to the alpine plateaus and peaks of the Pamir. Also, it is the only species found in all six ranges and it ascends higher than any other in all except the Tian-Shan, where, under conditions more favorable to most ferns, *Asplenium viride* equals it and *Botrychium Lunaria* is a good second. These facts may be not without significance as indicating, in its hardiness and adaptability, reasons for the almost unprecedentedly wide distribution of *C. fragilis*.<sup>3</sup>

It is a pleasure to receive another of Brother Victorin's excellent and, for anyone who knows French, most readable studies of the fernworts of Quebec. This, an illustrated pamphlet of 137 pages, deals with the *Equisetaceae*. As in the earlier papers of the series, the usual taxonomic keys and descriptions and the usual statements of habitat and local ranges are supplemented with an abundance of information and comment relating to the history, uses, geographic distribution, origin, habits, common names, etc., of the plants concerned. We learn, for instance, that the *Equiseta* are known to the inhabitants of French Canada as "Queue de renard," fox-tail; that *E. arvense* is one of the worst weeds in the alluvial soils along the St. Lawrence; that, though most species of the genus are injurious to cattle,

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<sup>3</sup> Fedtschenko, Boris. Zur vertikalen Verbreitung der Farne in den Gebirgen von Turkestan. 5 pp. Reprint, without indication of origin.

*E. limosum* is not and is eaten with special avidity by horses; that the sterile and fertile stems of *E. sylvaticum* can be distinguished late in the season by their shape, the former, in which the lower branches develop first, taking the form of a cone standing on its base, the latter, in which the reverse is the case, that of an inverted cone.

Bro. Victorin finds, with A. A. Eaton, that there are few real varieties among the horsetails, most of the variants so-called being merely growth-forms, which are often the obvious result of external conditions and two or more of which sometimes occur on the same rootstock. However, he freely recognizes such variants as forms, meeting possible criticism with the remark that modern genetics have taught us the importance of studying minor variations and that "taxonomy must not forget that one of its functions is to supply the investigator with an exact and comprehensive terminology and with serviceable categories, without attempting to judge, in advance, of their absolute value." He regards as proper varieties *E. arvense*, var. *boreale* (Bong.) Milde, distinguished by its three-angled branches and of more northern range than the typical form, and *E. variegatum*, var. *Jesupi* A. A. Eaton (which, however, he transfers to *E. hyemale*). He finds, what no previous student of the group seems to have noticed, that American *E. palustre* differs from the European in the characters of the teeth of the sheaths and makes of it a new variety, *E. palustre*, var. *americanum*.

In general, Bro. Victorin is conservative in his classification. He refuses to follow Farwell in dividing *Equisetum* into two genera; and he retains Eaton's treatment of the east-American scouring rush as a variety of the European *E. hyemale*. In one case he probably carries the conservative tendency too far; the thing as to which students of the group are likely to dis-

agree with him most positively is his reduction of Eaton's *E. hyemale*, var. *intermedium* to the rank of form without a word of comment or explanation. This plant is treated as a separate species by Schaffner; in New England, at least, it has a very different range and a different soil-preference from var. *affine*; and the sheath-characters on which it depends would seem to be at least as strong as those on which Bro. Victorin founds his variety of *E. palustre*.

One closes with regret that this must be the last of the fernwort papers, the group having now been completely covered. The series, however, will go on through the flowering plants (an installment on the gymnosperms has already appeared) until, it is hoped, the whole vascular flora of the province has been treated.<sup>1</sup>

THE RANSIERS' TRIP.—Some people are lucky! They can sit down and plan what they would like to do,—the most ideal kind of trip imaginable,—and then they can go and do it. We can all make similar plans, but the opportunities to carry them out do not always so readily materialize. Just consider the following trip which the Ransiers have planned and which is already under way, and then send your congratulations.

A closed car with a trailer; in the trailer an electric ice box, the power for which is furnished by the mechanism attached to the wheels; in the trailer two comfortable beds and a good radio; destination, anywhere or all over the United States; object, to have a good time.

The above summarizes approximately just what the Ransiers are now carrying out. We shall hope to have some reports from them from time to time for the FERN

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<sup>1</sup> Victorin, Fr. Marie-, Les Équisétinées du Québec. Contr. Lab. Bot. Univ. Montréal 9. 1927.